

### Abstract

[0106] Systems in the current art provide capacity planning for packet networks. These systems require input data that characterizes traffic demands. The demands may be expressed as matrixes that record the number of bytes and packets exchanged between access routers or service nodes for each type-of-service. This invention defines a system and method to calculate these traffic matrixes. Access routers in a service node export flow records to a Record Collector. The flow records are processed to create ingress and egress records that are stored on the Record Collector. This data is uploaded to a Capacity Planning Server at which the traffic matrixes are generated. The egress access router(s) for a flow are determined by searching for matching ingress and egress records. Matching records have identical source and destination addresses. This algorithm requires no knowledge of the complex topology and routing protocols that are used within packet networks. Sampled or non-sampled flow records may be used. The concepts in this invention may also be used to calculate traffic matrixes for virtual private networks (VPNs).